

ABSTRACT

A digital modulation apparatus capable of generating a modulated code so that binary slice is correctly performed when reproducing is provided. To achieve this, in a 5 digital modulation apparatus (10A), a DSV change amount calculator (15) calculates change amounts ( $\Delta\text{DSV}_a$ ,  $\Delta\text{DSV}_b$ ) in DSVs of candidate modulated codes (**CODEa**, **CODEb**) generated by a modulated code generator (11). A modulated code determinator (13) compares the change amounts ( $\Delta\text{DSV}_a$ ,  $\Delta\text{DSV}_b$ ), and determines that the candidate modulated code having a smaller absolute value should be selected as a modulated code 10 (**CODE**). A modulated code selector (14) selects one of the candidate modulated codes (**CODEa**, **CODEb**) which is determined by the modulated code determinator (13), and outputs the selected code as a modulated code (**CODE**) for source data (**DATA**).